

B. Claims

Please cancel claims 2-10, 12, 14, 15 and 17-33 without prejudice and amend claims 1 and 16 as follows. A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. (Currently Amended) A method, in printing an image comprising a plurality of image values, of compensating for one or more defective printer nozzles in a plurality of printer nozzles, said method comprising the steps of:

 biasing, for each first image value associated with a first nozzle, at least one second image value associated with another nozzle, said biasing being dependent upon said first image value and a printing desirability factor for said first nozzle;

 halftoning said at least one biased second image value to form at least one corresponding nozzle firing value; and

 printing the image using said at least one nozzle firing value to thereby emulate the intended output of the first nozzle, thereby reducing print artefacts otherwise caused by the one or more defective nozzles,

wherein said biasing further comprises the sub-steps of:

redistributing one of part of said first image value and all of said first image value to said at least one second image value associated with the other nozzle being an immediately neighboring nozzle of the same color; and

increasing an image value associated with a corresponding nozzle of another color, said increase being dependent upon a residual image value of said first nozzle after said redistributing step.

2. - 12. (Cancelled)

13. (Previously Presented) A method of printing an image comprising a plurality of image values using a print head having a plurality of print nozzles wherein at least one print nozzle is defective, the method comprising the steps of:

tuning an error diffusion table to establish a relationship between the image values and corresponding average nozzle firing values dependent upon printing desirability factors of the print nozzles in the print head; and

printing the multi-level halftoned image using the error diffusion table using the steps of:

biasing, for each first image value associated with said defective nozzle, at least one second image value associated with another said nozzle, said biasing being dependent upon said first image value and a printing desirability factor for said defective nozzle;

halftoning, using the tuned error diffusion table, said at least one biased second image value to form at least one corresponding nozzle firing value; and

printing the image using said at least one nozzle firing value to thereby emulate the intended output of the first nozzle, thereby reducing print artefacts otherwise caused by the one or more defective nozzles.

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) An image recording apparatus for recording an image comprising a plurality of image values, the apparatus comprising:

a plurality of forming elements for forming the image using image recording signals;

memory means for storing data for said forming elements indicating the relative desirability of utilizing said forming elements for forming an image;

image processing means for redistributing said image values based on said data stored in said memory means so as to form redistributed image values the use of which biases use of said forming elements; and

halftoning means for halftoning the redistributed image values to form corresponding said image recording signals; and

image processing means for modifying said redistributed image values relating to a color component based on said redistributed image values and based on said data indicating the relative desirability of utilizing said forming elements relating to other color components,

wherein said apparatus is a color image recording apparatus, said plurality of forming elements including plural groups of forming elements respectively corresponding to color components.

17. - 33. (Cancelled)